

made by Charles Berkman during a telephone call from the Examiner on November 13, 1996 .

Claim 19 was found allowable if rewritten in independent format. Claims 1, 2 and 20 stand rejected and the specification is objected to under 35 U.S.C. § 112, first paragraph. Claims 1-4, 16-18, 20-26 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1-4 are rejected under 35 U.S.C. § 102 (b). Claims 21-26 are rejected under 35 U.S.C. § 103. The figures have been objected to.

Applicants have amended claims 1-4, 16-18 and 20-26 to more specifically describe the claimed invention. Claim 19 was found allowable by the Examiner and was rewritten in independent format.

I. Objection to the Figures:

The Examiner states that the bold italics mentioned on page 25 of the specification were not included in the figures.

Applicant respectfully submits that such markings will be reflected in the formal drawings submitted upon indication of allowable subject matter. Applicant respectfully requests that the Examiner reconsider and hold this matter of form in abeyance pursuant to 37 C.F.R. § 1.111 until there has been indication of allowable subject matter.

II. Rejection/Objection under 35 U.S.C. § 112, first paragraph:

Claims 1, 2 and 20 stand rejected and the specification is objected to as allegedly failing to provide an enabling disclosure. Applicants have amended the specification and

claims 1, 2 and 20 to more clearly describe the subject invention. The amendments are fully supported by the specification.

The Examiner noted that the Specification does not enable a MDK1 polypeptide with 2 contiguous amino acids that retains functional activity. Applicants have amended the application in order to expedite prosecution. Furthermore, Applicants would like to point out that the claims in their amended form are drawn to the full length MDK1 polypeptide set forth in SEQ ID NO: 2 or highly homologous polypeptides. The new scope of the claims as amended is fully enabled by the Specification. Applicants submit that they have overcome this rejection in light of the amendments and that the rejection should be withdrawn.

The Examiner further states the Specification allegedly does not enable functional derivatives of the MDK1 polypeptide. The Examiner notes that there are examples in protein chemistry where substitution of even a single amino acid can dramatically alter the biological activity and characteristics of a protein and that therefore one of skill in the art would allegedly be forced into undue experimentation to use the claimed invention as a functional MDK1 polypeptide. Applicants respectfully travers this rejection. It is well settled that even in an unpredictable art an applicant is not required to disclose and test every species encompassed by their claims. In re Angstadt and Griffin, 190 U.S.P.Q. 214, 218 (C.C.P.A. 1976).

Applicants do not assert that every deletion, truncation, chemical modification etc. will produce a molecule with significant tyrosine kinase activity. The claimed invention only encompasses those derivatives of the MDK1 polypeptide that do not exhibit a significant reduction in tyrosine kinase activity. The production and testing of an MDK1 polypeptide as described in the specification only involves the use of standard techniques. These techniques are well known in the art and have been published in the

literature for a number of years. Therefore, one of skill in the art would not be forced into undue experimentation. It is well settled that even a considerable amount of experimentation is permissible, if it is merely routine. (In re Wands, 8 U.S.P.Q. 2d 1400 (Fed. Cir. 1988)).

Applicants submit that in view of the above amendments, this rejection is now moot and should be withdrawn.

III. Rejection under 35 U.S.C. § 112, second paragraph:

Claims 1-4, 16-18 and 20-26 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicants have amended the claims to more clearly define the subject invention. Applicants submit that the rejection is now moot in view of the above amendments.

IV. Rejection under 35 U.S.C. § 102:

Claims 1-4 are rejected under 35 U.S.C. § 102 as being anticipated by Sajaddi et al. Sajaddi teaches an isolated cDNA that encodes a receptor tyrosine kinase that has a nucleic acid sequence with 46.4% sequence identity with SEQ ID NO: 2. The Applicants have amended claims 1-4, claiming the sequences described in SEQ ID NO: 1 and SEQ ID NO: 2 as well as sequences which hybridize with strands of the nucleic acid described in SEQ ID NO:1 under stringent hybridization conditions. The receptor tyrosine kinase described in the Sajaddi reference are not expected to hybridize with such strands under stringent hybridization conditions. Applicants respectfully submit that in view of the above amendments the rejection under 35 U.S.C. § 102 is moot and should be withdrawn.

V. Rejection under 35 U.S.C. § 103:

Claims 21-26 are rejected under 35 U.S.C. § 103 as being unpatentable over Sajaddi et al. as applied to claims 1-4 in view of U.S. Patent No. 5,521,295 and U.S. Patent No. 5,504,000. By narrowing the scope of claims 1-4 Applicants believe that they have successfully overcome the Examiner's rejection regarding the Sajaddi reference. Therefore the cited references, either alone or in combination with each other, do not suggest the subject invention. In view of the amendments to claims 1-4 and 21-26 and the Remarks regarding the rejection under § 102, supra, Applicants submit that this rejection is now moot and should be withdrawn.

CONCLUSION:

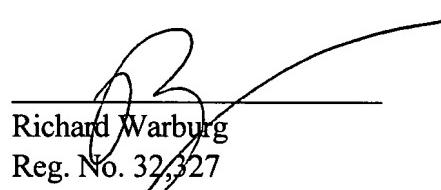
Applicants believe that the application is now in a condition for allowance. No new matter has been introduced. An early and favorable action on the merits is earnestly solicited. If a fee is required in connection with this paper, please charge Lyon & Lyon Deposit Account No. 12-2475 for the appropriate amount.

Respectfully submitted,

LYON & LYON

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